



IFW16

RAW SEQUENCE LISTING

DATE: 08/23/2004

PATENT APPLICATION: US/09/743,107C

TIME: 11:14:52

Input Set : A:\003300-723.ST25.txt

Output Set: N:\CRF4\08232004\I743107C.raw

4 <110> APPLICANT: Hanson, Lars A.
 5 Baltzer, Lars
 6 Mattsby-Baltzer, Inger
 7 Dolphin, Gunnar T.
 9 <120> TITLE OF INVENTION: Peptides Based on the Sequence of Human Lactoferrin
 10 and Their Use
 12 <130> FILE REFERENCE: 003300-723
 14 <140> CURRENT APPLICATION NUMBER: US 09/743,107C
 15 <141> CURRENT FILING DATE: 2001-08-21
 17 <150> PRIOR APPLICATION NUMBER: PCT/SE99/01230
 18 <151> PRIOR FILING DATE: 2000-09-29
 20 <150> PRIOR APPLICATION NUMBER: SE 9802441-7
 21 <151> PRIOR FILING DATE: 1998-07-06
 23 <150> PRIOR APPLICATION NUMBER: SE 9802562-0
 24 <151> PRIOR FILING DATE: 1998-07-17
 26 <150> PRIOR APPLICATION NUMBER: SE 9804614-7
 27 <151> PRIOR FILING DATE: 1998-12-29
 29 <160> NUMBER OF SEQ ID NOS: 102
 31 <170> SOFTWARE: PatentIn version 2.1
 33 <210> SEQ ID NO: 1
 34 <211> LENGTH: 25
 35 <212> TYPE: PRT
 36 <213> ORGANISM: Artificial Sequence
 38 <220> FEATURE:
 39 <221> NAME/KEY: MOD_RES
 40 <222> LOCATION: (1)
 41 <223> OTHER INFORMATION: ACETYLTATION
 43 <220> FEATURE:
 44 <221> NAME/KEY: PEPTIDE
 45 <222> LOCATION: (1)
 46 <223> OTHER INFORMATION: Amino acid 1 is Xaa wherein Xaa = Glu or no amino acid.
 48 <220> FEATURE:
 49 <221> NAME/KEY: PEPTIDE
 50 <222> LOCATION: (2)
 51 <223> OTHER INFORMATION: Amino acid 2 is Xaa wherein Xaa = Ala or no amino acid.
 53 <220> FEATURE:
 54 <221> NAME/KEY: PEPTIDE
 55 <222> LOCATION: (5)
 56 <223> OTHER INFORMATION: Amino acid 5 is Xaa wherein Xaa = Cys or Ala.
 58 <220> FEATURE:
 59 <221> NAME/KEY: PEPTIDE
 60 <222> LOCATION: (7)
 61 <223> OTHER INFORMATION: Amino acid 7 is Xaa wherein Xaa = Gln or Lys.

(pg. 6)

ENTERED

RAW SEQUENCE LISTING

DATE: 08/23/2004

PATENT APPLICATION: US/09/743,107C

TIME: 11:14:52

Input Set : A:\003300-723.ST25.txt

Output Set: N:\CRF4\08232004\I743107C.raw

```

63 <220> FEATURE:
64 <221> NAME/KEY: PEPTIDE
65 <222> LOCATION: (11)
66 <223> OTHER INFORMATION: Amino acid 11 is Xaa wherein Xaa = Asn or Asp.
68 <220> FEATURE:
69 <221> NAME/KEY: PEPTIDE
70 <222> LOCATION: (17)..(25)
71 <223> OTHER INFORMATION: Amino acids 17-25 are Xaa wherein Xaa = Gly, Pro, Pro,
72     Val, Ser,
73     Cys, Ile, Lys, Arg
75 <220> FEATURE:
76 <221> NAME/KEY: MOD_RES
77 <222> LOCATION: (25)
78 <223> OTHER INFORMATION: AMIDATION
80 <220> FEATURE:
81 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
82     artificial
83     origin, corresponding to modification of the sequence
84     consisting of aa 16-40 in human lactoferrin
86 <400> SEQUENCE: 1
W--> 88 Xaa Xaa Thr Lys Xaa Phe Xaa Trp Gln Arg Xaa Met Arg Lys Val Arg
      89 1           5           10           15
W--> 91 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      92           20           25
94 <210> SEQ ID NO: 2
95 <211> LENGTH: 25
96 <212> TYPE: PRT
97 <213> ORGANISM: Artificial Sequence
99 <220> FEATURE:
100 <221> NAME/KEY: MOD_RES
101 <222> LOCATION: (1)
102 <223> OTHER INFORMATION: ACETYLATION
104 <220> FEATURE:
105 <221> NAME/KEY: MOD_RES
106 <222> LOCATION: (25)
107 <223> OTHER INFORMATION: AMIDATION
109 <220> FEATURE:
110 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
111     artificial origin, corresponding to a modification
112     of the sequence consisting of amino acids 16-40 in
113     human lactoferrin
115 <400> SEQUENCE: 2
116 Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg
117 1           5           10           15
119 Gly Pro Pro Val Ser Cys Ile Lys Arg
120           20           25
124 <210> SEQ ID NO: 3
125 <211> LENGTH: 25
126 <212> TYPE: PRT

```

RAW SEQUENCE LISTING

DATE: 08/23/2004

PATENT APPLICATION: US/09/743,107C

TIME: 11:14:52

Input Set : A:\003300-723.ST25.txt

Output Set: N:\CRF4\08232004\I743107C.raw

```

127 <213> ORGANISM: Artificial Sequence
129 <220> FEATURE:
130 <221> NAME/KEY: MOD_RES
131 <222> LOCATION: (1)
132 <223> OTHER INFORMATION: ACETYLATION
134 <220> FEATURE:
135 <221> NAME/KEY: MOD_RES
136 <222> LOCATION: (25)
137 <223> OTHER INFORMATION: AMIDATION
139 <220> FEATURE:
140 <221> NAME/KEY: DISULFID
141 <222> LOCATION: (5)..(22)
143 <220> FEATURE:
144 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
145     artificial origin, corresponding to a modification
146     of the sequence consisting of amino acids 16-40 in
147     human lactoferrin
149 <400> SEQUENCE: 3
150 Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg
151   1           5           10           15
153 Gly Pro Pro Val Ser Cys Ile Lys Arg
154           20           25
158 <210> SEQ ID NO: 4
159 <211> LENGTH: 23
160 <212> TYPE: PRT
161 <213> ORGANISM: Artificial Sequence
163 <220> FEATURE:
164 <221> NAME/KEY: MOD_RES
165 <222> LOCATION: (1)
166 <223> OTHER INFORMATION: ACETYLATION
168 <220> FEATURE:
169 <221> NAME/KEY: MOD_RES
170 <222> LOCATION: (23)..(23)
171 <223> OTHER INFORMATION: AMIDATION
173 <220> FEATURE:
174 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
175     artificial origin, corresponding to a modification
176     of the sequence consisting of amino acids 18-40 in
177     human lactoferrin
179 <400> SEQUENCE: 4
180 Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg Gly Pro
181   1           5           10           15
183 Pro Val Ser Cys Ile Lys Arg
184           20
188 <210> SEQ ID NO: 5
189 <211> LENGTH: 23
190 <212> TYPE: PRT
191 <213> ORGANISM: Artificial Sequence
193 <220> FEATURE:

```

RAW SEQUENCE LISTING

DATE: 08/23/2004

PATENT APPLICATION: US/09/743,107C

TIME: 11:14:52

Input Set : A:\003300-723.ST25.txt

Output Set: N:\CRF4\08232004\I743107C.raw

```

194 <221> NAME/KEY: MOD_RES
195 <222> LOCATION: (1)
196 <223> OTHER INFORMATION: ACETYLATION
198 <220> FEATURE:
199 <221> NAME/KEY: MOD_RES
200 <222> LOCATION: (23)
201 <223> OTHER INFORMATION: AMIDATION
203 <220> FEATURE:
204 <221> NAME/KEY: DISULFID
205 <222> LOCATION: (3)..(20)
207 <220> FEATURE:
208 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
209     artificial origin, corresponding to a modification
210     of the sequence consisting of amino acids 18-40 in
211     human lactoferrin
213 <400> SEQUENCE: 5
214 Thr Lys Cys Phe Gln Trp Gln Arg Asn Met Arg Lys Val Arg Gly Pro
215   1           5           10           15
217 Pro Val Ser Cys Ile Lys Arg
218           20
222 <210> SEQ ID NO: 6
223 <211> LENGTH: 14
224 <212> TYPE: PRT
225 <213> ORGANISM: Artificial Sequence
227 <220> FEATURE:
228 <221> NAME/KEY: MOD_RES
229 <222> LOCATION: (1)
230 <223> OTHER INFORMATION: ACETYLATION
232 <220> FEATURE:
233 <221> NAME/KEY: MOD_RES
234 <222> LOCATION: (14)
235 <223> OTHER INFORMATION: AMIDATION
237 <220> FEATURE:
238 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
239     artificial origin, corresponding to a modification
240     of the sequence consisting of amino acids 18-31 in
241     human lactoferrin
243 <400> SEQUENCE: 6
244 Thr Lys Ala Phe Lys Trp Gln Arg Asp Met Arg Lys Val Arg
245   1           5           10
249 <210> SEQ ID NO: 7
250 <211> LENGTH: 14
251 <212> TYPE: PRT
252 <213> ORGANISM: Artificial Sequence
254 <220> FEATURE:
255 <221> NAME/KEY: MOD_RES
256 <222> LOCATION: (1)
257 <223> OTHER INFORMATION: ACETYLATION
259 <220> FEATURE:

```

RAW SEQUENCE LISTING

DATE: 08/23/2004

PATENT APPLICATION: US/09/743,107C

TIME: 11:14:52

Input Set : A:\003300-723.ST25.txt

Output Set: N:\CRF4\08232004\I743107C.raw

260 <221> NAME/KEY: MOD_RES
 261 <222> LOCATION: (14)
 262 <223> OTHER INFORMATION: AMIDATION
 264 <220> FEATURE:
 265 <221> NAME/KEY: BINDING
 266 <222> LOCATION: (5)..(9)
 267 <223> OTHER INFORMATION: LACTAM
 269 <220> FEATURE:
 270 <223> OTHER INFORMATION: Description of Artificial Sequence: of natural or
 271 artificial origin, corresponding to a modification
 272 of the sequence consisting of aa 18-31 in human
 273 lactoferrin; a lactam is formed between aa 5 and 9
 275 <400> SEQUENCE: 7
 276 Thr Lys Ala Phe Lys Trp Gln Arg Asp Met Arg Lys Val Arg
 277 1 5 10
 281 <210> SEQ ID NO: 8
 282 <211> LENGTH: 20
 283 <212> TYPE: PRT
 284 <213> ORGANISM: Artificial Sequence
 286 <220> FEATURE:
 287 <223> OTHER INFORMATION: Description of Artificial Sequence: Peptide of
 288 natural or artificial origin consisting of the
 289 amino acids in positions 12-31 of the protein
 290 human lactoferrin
 292 <400> SEQUENCE: 8
 293 Val Ser Gln Pro Glu Ala Thr Lys Cys Phe Gln Trp Gln Arg Asn Met
 294 1 5 10 15
 296 Arg Lys Val Arg
 297 20
 301 <210> SEQ ID NO: 9
 302 <211> LENGTH: 7
 303 <212> TYPE: PRT
 304 <213> ORGANISM: Artificial Sequence
 306 <220> FEATURE:
 307 <223> OTHER INFORMATION: Description of Artificial Sequence: Peptide of
 308 natural or artificial origin consisting of the
 309 amino acids in positions 12-18 of the protein
 310 human lactoferrin
 312 <400> SEQUENCE: 9
 313 Val Ser Gln Pro Glu Ala Thr
 314 1 5
 318 <210> SEQ ID NO: 10
 319 <211> LENGTH: 7
 320 <212> TYPE: PRT
 321 <213> ORGANISM: Artificial Sequence
 323 <220> FEATURE:
 324 <223> OTHER INFORMATION: Description of Artificial Sequence: Peptide of
 325 natural or artificial origin consisting of the
 326 amino acids in positions 13-19 of the protein

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/743,107C

DATE: 08/23/2004
TIME: 11:14:53

Input Set : A:\003300-723.ST25.txt
Output Set: N:\CRF4\08232004\I743107C.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,3,7,11,17,18,19,20,21,22,23,24,25
Seq#:43; Xaa Pos. 2,4,6,10
Seq#:87; Xaa Pos. 5
Seq#:88; Xaa Pos. 5
Seq#:89; Xaa Pos. 7
Seq#:90; Xaa Pos. 7
Seq#:99; Xaa Pos. 3,4,5,6,7,8,9

VERIFICATION SUMMARY

DATE: 08/23/2004

PATENT APPLICATION: US/09/743,107C

TIME: 11:14:53

Input Set : A:\003300-723.ST25.txt

Output Set: N:\CRF4\08232004\I743107C.raw

L:88 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:91 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:16
L:906 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
L:1276 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1304 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1811 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:0
L:1834 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:88 after pos.:0
L:1857 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:89 after pos.:0
L:1880 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:0
L:2109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:99 after pos.:0